

K. Aushal

CRF Error Corrected by the STIC Systems Branch

CRF Processing Date: 11/15/99

Edited by: [Signature]

Verified by: [Signature] (STIC staff)

Serial Number: 09/205,658

MAR 22 2000

TECH CENTER T600/2600

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: \_\_\_\_\_
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other \_\_\_\_\_

ENTERED

- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: \_\_\_\_\_

- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: \_\_\_\_\_

- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: \_\_\_\_\_

- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

- ☐ Inserted colons after headings/subheadings. Headings edited included: \_\_\_\_\_

- ☐ Deleted extra, invalid, headings used by an applicant, specifically: \_\_\_\_\_

- ☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as \_\_\_\_\_

- ☐ Inserted mandatory headings, specifically: \_\_\_\_\_

- ☐ Corrected an obvious error in the response, specifically: \_\_\_\_\_

- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.

- ☐ Corrected an error in the Number of Sequences field, specifically: \_\_\_\_\_

- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

- ☐ Deleted **ending** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: \_\_\_\_\_

- ☒ Other: Seq 11 - moved cumulative base totals over to left

\*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form. 3/1/95

PAGE: 1

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/205,658DATE: 11/15/1999  
TIME: 10:50:18

Input Set: I205658.RAW

This Raw Listing contains the General  
Information Section and those Sequences  
containing ERRORS.

```

1 <110> Ruvkun, Gary
2   Ogg, Scott
3 <120> THERAPEUTIC AND DIAGNOSTIC TOOLS FOR
4   IMPAIRED GLUCOSE TOLERANCE CONDITIONS
5 <130> 00786/351004
6 <140> US/09/205,658
7 <141> 1998-12-03
8 <150> 08/857,076
9 <151> 1997-05-15
10 <150> 08/888,534
11 <151> 1997-07-07
12 <150> US98/10080
13 <151> 1998-05-15
14 <160> 328
15 <170> FastSEQ for Windows Version 4.0

```

Does Not Comply  
Corrected Diskette Needed

## ERRORED SEQUENCES FOLLOW

```

16 <210> 11
E--> 17 <211> 5816
18 <212> DNA
19 <213> Caenorhabditis elegans
20 <220>
21 <221> misc_feature
22 <222> (1)...(5816)
23 <223> n = A,T,C or G
24 <400> 11
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W--> 26
E--> 27 a aaatttgga 180gaagagaatc tcggcccgag ctgctcgctg acgacttcaa caaccgctgc ca
W--> 28
E--> 29 gacgacgagc acatcacaat gagacggctt 360cgacttgta aaaattcgcg gacgcggcgt agaa
W--> 30
E--> 31 cattaatg cttttactgc tattcgcttt tgtacagccg tgtgcctcaa 540tagtcgaaaa acgatg
W--> 32 660gcacagtgg ggaagggttcg ctgacaatct catttgact gaaacacaag acaaaagcac
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W--> 34
E--> 35 ataatc gaaaactgtg ctacacgaaa acgattgatt 1020ggaaacattt gatcacttct tccatcaa
W--> 36
E--> 37 gtca ttatttggag gaaaagaatc aggaacaagg tgtcgaaaga gttcagagtt 1200gttggtcgaa
W--> 38
E--> 39 gcgggtt 1320gtgagcgtgt gaatgatgcc acagcatgcc acgcgtgcaa gaatgtctat cacaaggg

```

more  
cumulative  
base total  
over to  
left

PAGE: 2

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/205,658

DATE: 11/15/1999  
TIME: 10:50:18

Input Set: I205658.RAW

```

W--> 40
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W--> 42
E--> 43      ag gcgatcaggc tatgcaatat tattgacgga aatctgacga      1680tcgagattcg cggaaaacag g
E--> 44      0acatgttccg gaattttacga cgtattgagg caaagtcact gttcagaaat ctatatgcta      1860tca
W--> 45
E--> 46      ag tatatcaagc      1980agctaattgtc aaagttaa ataccactcg atccgataga tcaatcagaa g
W--> 47
E--> 48      acattaccga tatagatcag cgaaagtttc      2160tcgggtacga gctcttcttc aaagaagtcc cac
W--> 49
E--> 50      ccgaccccg gacattttta tggatattgg accgcgcgag cgaattcggc      2340cgaatacgct ctacg
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E--> 54      atcgaag aatcatcgga acagaacaag aagaagcgac      2820cggatccgat gtcggcgatc gaatcat
W--> 55
E--> 56      ttgga aaaagctgaa aatttgggaa agctccaaa aactctcggg ggaaagaagc      3000cgctgatcc
W--> 57
E--> 58      acaagga      3120ttcgggtctta cgagatctac gaacctttac ccggaagctg ggcgattaat gtatcag
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E--> 62      ttc ggttatgttg taaagcttaa gtcaaaagtc gatggatcaa      3480ttgttatgac gagatgtgtc
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W--> 66
E--> 67      c tgatgggtga tcgtttcgga ccgtgtgcta      3960ttaagattaa tgtagatgat ccagcgtcga ct
W--> 68
E--> 69      gatggttgtg atggaaatga tggatcttgg aaatctccgt gactatctcc      4140gatcgaaacg cgaa
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E--> 71      t      4260cgctcaagtt ttgccatcga gatctgcgcg cacgtaattg catgataaat cgggatgaga
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E--> 73      cgagtcgttg aaagacggaa      4440agtttgactc gaaatctgat gtttggagct tcggagttgt tctc
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E--> 75      cgaatgtt gtgaaaacta ttggtataag gtgatgaaaa      4620tgtgctggag atactcacct cgggat
W--> 76
E--> 77      tgacga ttcagaagca ctggatcttg atgatattga tgatactgat atgaatgatc      4800aggttgctc
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E--> 79      tgcgacga      4920cgagtcattc gacaatatcg attgatgaga caccgatgaa agcgaagcag cgagaa
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E--> 81      agatgt tcgagagaat gatgtgccaa      5100cgcgacgaaa tactggtgca tcaacatcaa gttacaca
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E--> 83      acat ttaaatgatg atgattatgt tgaaaaagag atatcatcca      5280tggtacgcg ccggagcacg
E--> 84      400cagcagcagc agcagcagct ctccaacagc aacaaaatgg tggtcgaggc gatcgattaa      5460c
W--> 85
E--> 86      aaac ggcaacagcc      5580gtgacatttt caacggacgt tcggctttcg gtgaaaatga gcatctaac
W--> 87
E--> 88      tc ggattttttt tcagattttt tctgaaaaat      5760tctgaataat tttaccccat ttttcaaac t

```

MAR 22 2000

DATE: 11/16/1999

TECH CENTER 16005200

PAGE: 1

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/205,658

Input Set: I205658.RAW

This Raw Listing contains the General Information  
Section and up to first 5 pages.

1 <110> APPLICANT: Ruvkun, Gary  
2 Ogg, Scott  
3 <120> TITLE OF INVENTION: THERAPEUTIC AND DIAGNOSTIC TOOLS FOR  
4 IMPAIRED GLUCOSE TOLERANCE CONDITIONS  
5 <130> FILE REFERENCE: 00786/351004  
6 <140> CURRENT APPLICATION NUMBER: US/09/205,658  
7 <141> CURRENT FILING DATE: 1998-12-03  
8 <150> EARLIER APPLICATION NUMBER: 08/857,076  
9 <151> EARLIER FILING DATE: 1997-05-15  
10 <150> EARLIER APPLICATION NUMBER: 08/888,534  
11 <151> EARLIER FILING DATE: 1997-07-07  
12 <150> EARLIER APPLICATION NUMBER: US98/10080  
13 <151> EARLIER FILING DATE: 1998-05-15  
14 <160> NUMBER OF SEQ ID NOS: 328  
15 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
16 <210> SEQ ID NO 1  
17 <211> LENGTH: 20  
18 <212> TYPE: DNA  
19 <213> ORGANISM: Artificial Sequence  
20 <220> FEATURE:  
21 <223> OTHER INFORMATION: Primer/probe derived from C. elegans  
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23 cgctacggca aaaaagtgaa  
24 <210> SEQ ID NO 2  
25 <211> LENGTH: 18  
26 <212> TYPE: DNA  
27 <213> ORGANISM: Artificial Sequence  
28 <220> FEATURE:  
29 <223> OTHER INFORMATION: Primer/probe derived from C. elegans  
30 <400> SEQUENCE: 2 18  
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32 <210> SEQ ID NO 3  
33 <211> LENGTH: 20  
34 <212> TYPE: DNA  
35 <213> ORGANISM: Artificial Sequence  
36 <220> FEATURE:  
37 <223> OTHER INFORMATION: Primer/probe derived from C. elegans  
38 <400> SEQUENCE: 3 20  
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40 <210> SEQ ID NO 4  
41 <211> LENGTH: 20  
42 <212> TYPE: DNA  
43 <213> ORGANISM: Artificial Sequence  
44 <220> FEATURE:

PAGE: 2

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/205,658DATE: 11/16/1999  
TIME: 16:33:52

Input Set: I205658.RAW

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48 <210> SEQ ID NO 5  
49 <211> LENGTH: 22  
50 <212> TYPE: DNA  
51 <213> ORGANISM: Artificial Sequence  
52 <220> FEATURE:  
53 <223> OTHER INFORMATION: Primer/probe derived from C. elegans  
54 <400> SEQUENCE: 5 22  
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56 <210> SEQ ID NO 6  
57 <211> LENGTH: 20  
58 <212> TYPE: DNA  
59 <213> ORGANISM: Artificial Sequence  
60 <220> FEATURE:  
61 <223> OTHER INFORMATION: Primer/probe derived from C. elegans  
62 <400> SEQUENCE: 6 20  
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64 <210> SEQ ID NO 7  
65 <211> LENGTH: 20  
66 <212> TYPE: DNA  
67 <213> ORGANISM: Artificial Sequence  
68 <220> FEATURE:  
69 <223> OTHER INFORMATION: Primer/probe derived from C. elegans  
70 <400> SEQUENCE: 7 20  
71 tgatgcgaac ggcgatcgat  
72 <210> SEQ ID NO 8  
73 <211> LENGTH: 21  
74 <212> TYPE: DNA  
75 <213> ORGANISM: Artificial Sequence  
76 <220> FEATURE:  
77 <223> OTHER INFORMATION: Primer/probe derived from C. elegans  
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80 <210> SEQ ID NO 9  
81 <211> LENGTH: 20  
82 <212> TYPE: DNA  
83 <213> ORGANISM: Artificial Sequence  
84 <220> FEATURE:  
85 <223> OTHER INFORMATION: Primer/probe derived from C. elegans  
86 <400> SEQUENCE: 9 20  
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88 <210> SEQ ID NO 10  
89 <211> LENGTH: 20  
90 <212> TYPE: DNA  
91 <213> ORGANISM: Artificial Sequence  
92 <220> FEATURE:  
93 <223> OTHER INFORMATION: Primer/probe derived from C. elegans  
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# RAW SEQUENCE LISTING PATENT APPLICATION US/09/205,658

DATE: 11/16/1999  
TIME: 16:33:52

Input Set: I205658.RAW

20

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96 <210> SEQ ID NO 11  
97 <211> LENGTH: 5816  
98 <212> TYPE: DNA  
99 <213> ORGANISM: Caenorhabditis elegans  
100 <220> FEATURE:  
101 <221> NAME/KEY: misc\_feature  
102 <222> LOCATION: (1)...(5816)  
103 <223> OTHER INFORMATION: n = A,T,C or G  
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| 106 | ctccccgaaa  | aaccaacaaa  | aaacacaagt  | ttttgaacac | ttgtaaagtc | agacagaacg  | 120  |
| 107 | atgacgagaa  | tgaatattgt  | cagatgtcgg  | agacgacaca | aaattttgga | aaattttgga  | 180  |
| 108 | gaagagaatc  | tcggcccgag  | ctgctcgtcg  | acgacttcaa | caaccgctgc | caccgaagct  | 240  |
| 109 | ctcggaaaca  | ccactgagga  | tatgaggctt  | aagcagcagc | gaagctcgtc | gcgtgccacg  | 300  |
| 110 | gagcacgata  | ttgtcgacgg  | caatcaccac  | gacgacgagc | acatcacaat | gagacgggctt | 360  |
| 111 | cgacttgtca  | aaaatttcgg  | gacgcggcgt  | agaacgacgc | ccgattcaag | tatggactgc  | 420  |
| 112 | tatgaggaaa  | accgcctatc  | acaaaaactt  | caataaatta | ttcttggatt | tctaaaaagt  | 480  |
| 113 | catcaatgac  | gtcattaatg  | cttttactgc  | tattcgcttt | tgtacagccg | tgtgcctcaa  | 540  |
| 114 | tagtcgaaaa  | acgatgcggc  | ccaatcgata  | ttcgaaatag | gccgtgggat | attaagccgc  | 600  |
| 115 | aatgggtcga  | acttgggtgat | ccgaacgaaa  | aagatttggc | tggtcagaga | atgggtcaact | 660  |
| 116 | gcacagtggg  | ggaagggttcg | ctgacaatct  | catttgtact | gaaacacaag | acaaaagcac  | 720  |
| 117 | aagaagaaat  | gcacgaagt   | ctacagccaa  | gatattccca | agacgaattt | atcacttttc  | 780  |
| 118 | cgcactctac  | tgaaattact  | ggaactctgc  | tcgtttttga | gactgaagga | ttagtggatt  | 840  |
| 119 | tgcgtaaaat  | tttcccaa    | cttcgtgtaa  | ttggaggccg | ttcgtgtatt | caacactatg  | 900  |
| 120 | cgctgataat  | ttatcgaaat  | ccggatttgg  | agatcggctc | tgacaagctt | tccgtaattc  | 960  |
| 121 | gaaatgggtg  | tgtacggata  | atcgataatc  | gaaaactgtg | ctacacgaaa | acgattgatt  | 1020 |
| 122 | ggaaacattt  | gatcacttct  | tccatcaacg  | atgttgtcgt | tgataatgct | gccgagtacg  | 1080 |
| 123 | ctgtcactga  | gactggattg  | atgtgcccac  | gtggagcttg | cgaagaggat | aaaggcgaat  | 1140 |
| 124 | caaagtgtca  | ttatttggag  | gaaaagaatc  | aggaacaagg | tgctgaaaga | gttcagagtt  | 1200 |
| 125 | gttgggtcga  | caccacttgc  | caaaagtctt  | gtgcttatga | tcgtcttctt | ccaacgaaaag | 1260 |
| 126 | aaatcggacc  | gggatgtgat  | gcgaacggcg  | atcgatgtca | cgatcaatgc | gtgggagggtt | 1320 |
| 127 | gtgagcgtgt  | gaatgatgcc  | acagcatgcc  | acgcgtgcaa | gaatgtctat | cacaagggaa  | 1380 |
| 128 | agtgtatcga  | aaagtgtgat  | gtcacctgt   | accttctcct | tcaacgtcgt | tgtgtgacct  | 1440 |
| 129 | gtgagcagtg  | tctgcagctg  | aatccgggtg  | tctcgaacaa | aacagtgcct | atcaaggcga  | 1500 |
| 130 | cggcaggcct  | ttgtcggat   | aaatgtcccg  | atggttatca | aatcaaccgg | gatgatcatc  | 1560 |
| 131 | gagaatgccg  | aaaatgcggt  | ggcaagtgtg  | agatttgttg | cgagatcaat | cacgtcattg  | 1620 |
| 132 | atacgtttcc  | gaaggcacag  | gcgatcaggc  | tatgcaatat | tattgacgga | aatctgacga  | 1680 |
| 133 | tcgagattcg  | cggaaaacag  | gattcgggaa  | tggcgtccga | gttgaaggat | atatttgcga  | 1740 |
| 134 | acattcacac  | gatcacccgg  | tacctgttgg  | tacgtcaatc | gtcacccgtt | atctcgttga  | 1800 |
| 135 | acatgttccg  | gaattttacga | cgtatttgagg | caaagtcact | gttcagaaat | ctatatgcta  | 1860 |
| 136 | tcacagtttt  | tgaaaatccg  | aattttaaaa  | agctattcga | ttcaacgacg | gatttgacgc  | 1920 |
| 137 | ttgatcgtgg  | aactgtgtca  | attgccaata  | acaagatgtt | atgcttcaag | tatatcaagc  | 1980 |
| 138 | agetaatgtc  | aaagttaa    | ataccactcg  | atccgataga | tcaatcagaa | gggacaaatg  | 2040 |
| 139 | gtgagaagg   | aatctgtgag  | gatatggcaa  | tcaacgtgag | catcacagcg | gtcaacgcgg  | 2100 |
| 140 | actcgggtct  | cttttagttg  | ccctcattca  | acattaccga | tatagatcag | cgaaagtttc  | 2160 |
| 141 | tcggctacga  | gctcttcttc  | aaagaagtcc  | cacgaatcga | tgagaacatg | acgatcgaag  | 2220 |
| 142 | aggatcgaag  | tgctgtgtgc  | gattcgtggc  | agagtgtctt | caaacagtac | tacgagacgt  | 2280 |
| 143 | cgaacgggtga | accgaccccg  | gacattttta  | tggatattgg | accgcgcgag | cgaattcggc  | 2340 |
| 144 | cgaatacgc   | ctacgcgtac  | tatgtggcga  | cgcagatggg | gttgcatgcc | ggtgcgaaga  | 2400 |

W--OK

PAGE: 4

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/205,658

DATE: 11/16/1999  
TIME: 16:33:52

Input Set: I205658.RAW

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| 146 | tggcactagc | gcaagtcgat  | tcggacgcta  | ttcatattac | gtgggaagcg  | ccgctccaac  | 2520 |
| 147 | cgaacggaga | cctcacgcat  | tacacaatta  | tgtggcgtga | gaatgaagt   | agcccgtacg  | 2580 |
| 148 | aggaagccga | aaagttttgt  | acagatgcaa  | gcacccccgc | aaatcgacaa  | cgacgaaag   | 2640 |
| 149 | atccgaaaga | gacgattgta  | gccgataagc  | cagtcgatat | tccgtcatca  | cgtaccgtag  | 2700 |
| 150 | ctccgacact | tttgactatg  | atgggtcacg  | aagatcagca | gaaaacgtgc  | gctgcaacgc  | 2760 |
| 151 | ccggttggtg | ttcgtgttcg  | gctatcgaag  | aatcatcgga | acagaacaag  | aagaagcgac  | 2820 |
| 152 | cggatccgat | gtcggcgcac  | gaatcatctg  | catttgagaa | taagctgttg  | gatgaggttt  | 2880 |
| 153 | taatgccgag | agacacgatg  | cgagtgcgac  | gatcaattga | agacgcgaat  | cgagtcagtg  | 2940 |
| 154 | aagagttgga | aaaagctgaa  | aatttgggaa  | aagctccaaa | aactctcggt  | ggaaagaagc  | 3000 |
| 155 | cgctgatcca | tatttcgaag  | aagaagccgt  | cgagcagcag | caccacatcc  | acaccggctc  | 3060 |
| 156 | caacgatcgc | atcaatgtat  | gccttaacaa  | ggaaaccgac | tacggtgccc  | ggaacaagga  | 3120 |
| 157 | ttcggctcta | cgagatctac  | gaacctttac  | ccggaagctg | ggcgattaat  | gtatcagctc  | 3180 |
| 158 | tggcattgga | taatagttat  | gtgatacgaa  | atttgaagca | ttacacactt  | tatgcgattt  | 3240 |
| 159 | ctctatccgc | gtgccaaaac  | atgacagtac  | ccggagcctc | ttgctcaata  | tcccatcggtg | 3300 |
| 160 | cgggagcatt | gaaacgaaca  | aaacacatca  | cagacattga | taaagtgttg  | aatgaaacaa  | 3360 |
| 161 | ttgaatggag | atattatgaat | aatagtcaac  | aagtcaacgt | gacgtgggat  | ccaccgactg  | 3420 |
| 162 | aagtgaatgg | tggaaatattc | ggttatgttg  | taaagcttaa | gtcaaaagtc  | gatggatcaa  | 3480 |
| 163 | ttgttatgac | gagatgtgtc  | gggtgcgaaga | gaggatattc | aacacggaat  | caggggtgtcc | 3540 |
| 164 | tattccagaa | tttggccgat  | ggacgttatt  | ttgtctcagt | aacggcgacc  | tctgtacacg  | 3600 |
| 165 | gcgctggacc | ggaagccgaa  | tcctccgacc  | caatcgtcgt | catgacgcca  | ggcttcttca  | 3660 |
| 166 | ctgtggaaat | cattctcggc  | atgcttctcg  | tctttttgat | tttaatgtca  | attgcccgtt  | 3720 |
| 167 | gtataatcta | ctactacatt  | caagtacgct  | acggcaaaaa | agtgaagct   | ctatctgact  | 3780 |
| 168 | ttatgcaatt | gaatcccga   | tattgtgttg  | acaataagta | caatgcagac  | gattgggagc  | 3840 |
| 169 | tacggcagga | tgatgtttgt  | ctcggacaac  | agtgtggaga | gggatcattc  | ggaaaagtgt  | 3900 |
| 170 | acctaggaac | tggaaataat  | gttgtttctc  | tgatgggtga | tcgtttcgga  | ccgtgtgcta  | 3960 |
| 171 | ttaagattaa | tgtagatgat  | ccagcgtcga  | ctgagaatct | caactatctc  | atggaagcta  | 4020 |
| 172 | atattatgaa | gaactttaag  | actaacttta  | tcgtccaact | gtacggagtt  | atctctactg  | 4080 |
| 173 | tacaaccagc | gatggttgtg  | atggaaatga  | tggatcttgg | aaatctccgt  | gactatctcc  | 4140 |
| 174 | gatcgaaacg | cgaagacgaa  | gtgttcaatg  | agacggactg | caactttttc  | gacataatcc  | 4200 |
| 175 | cgagggataa | attccatgag  | tgggcccgcac | agatttgtga | tggatggcg   | tacctggagt  | 4260 |
| 176 | cgctcaagtt | ttgccatcga  | gatctcgccg  | cacgtaattg | catgataaat  | cgggatgaga  | 4320 |
| 177 | ctgtcaagat | tggagatttc  | ggaatggctc  | gtgatctatt | ctatcatgac  | tattataagc  | 4380 |
| 178 | catcgggcaa | gcgtatgatg  | cctgttcgat  | ggatgtcacc | cgagtcgttg  | aaagacggaa  | 4440 |
| 179 | agtttgactc | gaaatctgat  | gtttggagct  | tcggagttgt | tctctatgaa  | atggttacac  | 4500 |
| 180 | tcggtgctca | gccatatatt  | ggtttgagta  | atgatgaggt | tgtgtaattat | attggaatgg  | 4560 |
| 181 | cccgaaggt  | tatcaagaag  | cccgaatgtt  | gtgaaaacta | ttggtataag  | gtgatgaaaa  | 4620 |
| 182 | tgtgctggag | atactcacct  | cgggatcgct  | cgacgttctc | ccagctcggt  | catcttctag  | 4680 |
| 183 | cagctgaagc | ttcaccagaa  | ttccgagatt  | tatcatttgt | cctaaccgat  | aatcaaata   | 4740 |
| 184 | tccttgacga | ttcagaagca  | ctggatcttg  | atgatattga | tgatactgat  | atgaatgatc  | 4800 |
| 185 | aggttgtcga | ggtggcaccg  | gatgttgaga  | acgtcgaggt | tcagagtgat  | tcggaacgtc  | 4860 |
| 186 | ggaatacggg | ttcaataccg  | ttgaaacagt  | ttaagacgat | ccctccgac   | aatgcgacga  | 4920 |
| 187 | cgagtcattc | gacaatatcg  | attgatgaga  | caccgatgaa | agcgaagcag  | cgagaaggat  | 4980 |
| 188 | cgctggatga | ggagtacgca  | ttgatgaatc  | atagtggagg | tccgagtgat  | gcggaagtcc  | 5040 |
| 189 | ggacgtatgc | tgggtgatgga | gattatgtgg  | agagagatgt | tcgagagaat  | gatgtgccaa  | 5100 |
| 190 | cgcgacgaaa | tactgggtgca | tcaacatcaa  | gttacacagg | tgggtgtcca  | tattgcctaa  | 5160 |
| 191 | caaatcggtg | tggttcaa    | gaacgaggag  | ccggtttcgg | tgaagcagta  | cgattaactg  | 5220 |
| 192 | atggtgttgg | aagtggacat  | ttaaatgatg  | atgattatgt | tgaaaaagag  | atatcatcca  | 5280 |
| 193 | tggatacgcg | ccggagcacg  | ggcgccctga  | gctcttctca | cggtgttcca  | cagacgaatt  | 5340 |
| 194 | ggagtggaaa | tcgtggtgcc  | acgtattata  | cgagtaaagc | tcaacaggca  | gcaactgcag  | 5400 |

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# RAW SEQUENCE LISTING PATENT APPLICATION US/09/205,658

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TIME: 16:33:52

Input Set: I205658.RAW

```

195 cagcagcagc agcagcagct ctccaacagc aacaaaatgg tggtcgaggc gatcgattaa 5460
196 ctcaactacc cggaactgga catttacaat cgacacgtgg tggacaagat ggagattata 5520
197 ttgaaactga accgaaaaat tatagaaata atggatctcc atcgcgaaac ggcaacagcc 5580
198 gtgacatttt caacggacgt tcggctttcg gtgaaaatga gcataatac gaggataatg 5640
199 agcatcatcc acttgtctga aacccccaaa aaatcccgcc tcttaaatta taaattatct 5700
200 cccacattat catatctcta cacgaataac ggattttttt tcagattttt tctgaaaaat 5760
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202 <210> SEQ ID NO 12
203 <211> LENGTH: 1724
204 <212> TYPE: PRT
205 <213> ORGANISM: Caenorhabditis elegans
206 <400> SEQUENCE: 12
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208 1 5 10 15
209 Ala Ser Ile Val Glu Lys Arg Cys Gly Pro Ile Asp Ile Arg Asn Arg
210 20 25 30
211 Pro Trp Asp Ile Lys Pro Gln Trp Ser Lys Leu Gly Asp Pro Asn Glu
212 35 40 45
213 Lys Asp Leu Ala Gly Gln Arg Met Val Asn Cys Thr Val Val Glu Gly
214 50 55 60
215 Ser Leu Thr Ile Ser Phe Val Leu Lys His Lys Thr Lys Ala Gln Glu
216 65 70 75 80
217 Glu Met His Arg Ser Leu Gln Pro Arg Tyr Ser Gln Asp Glu Phe Ile
218 85 90 95
219 Thr Phe Pro His Leu Arg Glu Ile Thr Gly Thr Leu Leu Val Phe Glu
220 100 105 110
221 Thr Glu Gly Leu Val Asp Leu Arg Lys Ile Phe Pro Asn Leu Arg Val
222 115 120 125
223 Ile Gly Gly Arg Ser Leu Ile Gln His Tyr Ala Leu Ile Ile Tyr Arg
224 130 135 140
225 Asn Pro Asp Leu Glu Ile Gly Leu Asp Lys Leu Ser Val Ile Arg Asn
226 145 150 155 160
227 Gly Gly Val Arg Ile Ile Asp Asn Arg Lys Leu Cys Tyr Thr Lys Thr
228 165 170 175
229 Ile Asp Trp Lys His Leu Ile Thr Ser Ser Ile Asn Asp Val Val Val
230 180 185 190
231 Asp Asn Ala Ala Glu Tyr Ala Val Thr Glu Thr Gly Leu Met Cys Pro
232 195 200 205
233 Arg Gly Ala Cys Glu Glu Asp Lys Gly Glu Ser Lys Cys His Tyr Leu
234 210 215 220
235 Glu Glu Lys Asn Gln Glu Gln Gly Val Glu Arg Val Gln Ser Cys Trp
236 225 230 235 240
237 Ser Asn Thr Thr Cys Gln Lys Ser Cys Ala Tyr Asp Arg Leu Leu Pro
238 245 250 255
239 Thr Lys Glu Ile Gly Pro Gly Cys Asp Ala Asn Gly Asp Arg Cys His
240 260 265 270
241 Asp Gln Cys Val Gly Gly Cys Glu Arg Val Asn Asp Ala Thr Ala Cys
242 275 280 285
243 His Ala Cys Lys Asn Val Tyr His Lys Gly Lys Cys Ile Glu Lys Cys
244 290 295 300

```

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.



Input Set: I205658.RAW

Line ? Error/Warning

Original Text

| Line | Error/Warning                         | Original Text                             |
|------|---------------------------------------|---|
| 139  | W "N" or "Xaa" used: Feature required | gtgagaaggn aatctgtgag gatatggcaa tcaacgtg |
| 710  | W "N" or "Xaa" used: Feature required | ggntgggayt rnrtnrngc ncc                  |
| 722  | W "N" or "Xaa" used: Feature required | tgytgynnnnc cnaacngar                     |
| 3067 | W "N" or "Xaa" used: Feature required | Leu Cys Gly Xaa Xaa Leu Val Glu Ala Leu X |
| 3071 | W "N" or "Xaa" used: Feature required | Glu Gln Cys Cys Xaa Xaa Xaa Cys Xaa Xaa X |
| 3266 | W "N" or "Xaa" used: Feature required | Pro Cys Thr Xaa Xaa Xaa Gln Glu Asp Met A |
| 3281 | W "N" or "Xaa" used: Feature required | Leu Cys Asn Xaa Xaa Xaa Gln Glu Gly Lys A |
| 3296 | W "N" or "Xaa" used: Feature required | Ala Cys Glu Xaa Xaa Xaa Ser Thr Glu Val A |
| 3311 | W "N" or "Xaa" used: Feature required | Pro Cys Glu Xaa Xaa Xaa Gly Thr Glu Gln A |
| 3326 | W "N" or "Xaa" used: Feature required | Glu Cys Ser Xaa Xaa Xaa Ser Thr Asn Glu A |
| 3341 | W "N" or "Xaa" used: Feature required | Cys Asp Thr Xaa Xaa Xaa Asp Ser Ser Glu A |
| 3356 | W "N" or "Xaa" used: Feature required | Arg Gly Phe Xaa Xaa Xaa Leu Gln Lys Arg G |
| 3371 | W "N" or "Xaa" used: Feature required | Arg Gly Phe Xaa Xaa Xaa Thr Pro Lys Ser G |
| 3386 | W "N" or "Xaa" used: Feature required | Arg Gly Phe Xaa Xaa Xaa Lys Met Lys Arg G |
| 3401 | W "N" or "Xaa" used: Feature required | Arg Gly Phe Xaa Xaa Xaa Lys Met Lys Arg G |
| 3416 | W "N" or "Xaa" used: Feature required | Arg Gly Phe Xaa Xaa Xaa Ser Pro Lys Gly G |
| 3431 | W "N" or "Xaa" used: Feature required | Arg Gly Phe Xaa Xaa Xaa Pro Lys Gln Ile G |
| 3446 | W "N" or "Xaa" used: Feature required | Arg Gly Phe Xaa Xaa Xaa Ala Pro Gln Thr G |
| 3461 | W "N" or "Xaa" used: Feature required | Arg Gly Phe Xaa Xaa Xaa Ala Pro Gln Thr G |
| 3476 | W "N" or "Xaa" used: Feature required | Arg Gly Phe Xaa Xaa Xaa Arg Arg Ser Arg G |
| 3491 | W "N" or "Xaa" used: Feature required | Arg Gly Phe Xaa Xaa Xaa Arg Arg Ser Arg G |
| 3506 | W "N" or "Xaa" used: Feature required | Arg Gly Tyr Xaa Xaa Xaa Arg Arg Arg Arg G |
| 3521 | W "N" or "Xaa" used: Feature required | Asn Tyr Asn Xaa Xaa Xaa Arg Arg Thr Arg G |
| 3536 | W "N" or "Xaa" used: Feature required | Ala Gly Val Xaa Xaa Xaa Arg Gly Lys Arg G |
| 3551 | W "N" or "Xaa" used: Feature required | Val Glu Lys Xaa Xaa Xaa Arg Gly Lys Arg G |
| 3566 | W "N" or "Xaa" used: Feature required | Val Glu Tyr Xaa Xaa Xaa Gly Lys Arg Ala G |
| 3581 | W "N" or "Xaa" used: Feature required | Gln Tyr Gln Xaa Xaa Xaa Gly Lys Arg Gln G |
| 3596 | W "N" or "Xaa" used: Feature required | Gln Tyr Gln Xaa Xaa Xaa Gly Lys Arg Gln G |
| 3611 | W "N" or "Xaa" used: Feature required | Gln Tyr Leu Xaa Xaa Xaa Gly Lys Arg Gly G |
| 3626 | W "N" or "Xaa" used: Feature required | Gln Leu Cys Xaa Xaa Xaa Gln Lys Arg Gly G |
| 3641 | W "N" or "Xaa" used: Feature required | Tyr Thr Thr Xaa Xaa Xaa Glu Ser Arg Pro S |
| 3656 | W "N" or "Xaa" used: Feature required | Ser Thr Trp Xaa Xaa Xaa Arg Pro Tyr Val A |
| 3671 | W "N" or "Xaa" used: Feature required | Pro Arg Trp Xaa Xaa Xaa Ala Ala Ala Thr A |
| 5360 | W "N" or "Xaa" used: Feature required | His Gln Lys Xaa Xaa Xaa Xaa Xaa Xaa X     |
| 6115 | W "N" or "Xaa" used: Feature required | Gly Trp Asp Xaa Xaa Ile Ala Pro Lys       |
| 6615 | W "N" or "Xaa" used: Feature required | Arg Xaa Xaa Ile Xaa Xaa Gly               |

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# RAW SEQUENCE LISTING

## PATENT APPLICATION US/09/205,658

 DATE: 11/16/1999  
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Input Set: I205658.RAW

### PREVIOUSLY ERRORED SEQUENCES-EDITED

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1  <210> 11
2  <211> 5816
3  <212> DNA
4  <213> Caenorhabditis elegans
5  <220>
6  <221> misc_feature
7  <222> (1)...(5816)
8  <223> n = A,T,C or G
9  <400> 11
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11 ctccccgaaa aaccaacaaa aaacacaagt ttttgaacac ttgtaaagtc agacagaacg 120
12 atgacgagaa tgaatattgt cagatgtcgg agacgacaca aaattttgga aaatttgga 180
13 gaagagaatc tcggcccgag ctgctcgctg acgacttcaa caaccgctgc caccgaagct 240
14 ctcggaacaa cactgagga tatgaggctt aagcagcagc gaagctcgtc gcgtgccacg 300
15 gagcacgata ttgtcgacgg caatcaccac gacgacgagc acatcacaat gagacggctt 360
16 cgacttgtca aaaattcgcg gacgcggcgt agaacgacgc ccgattcaag tatggactgc 420
17 tatgaggaaa acccgccatc acaaaaactt caataaatta ttcttggtatt tctaaaaagt 480
18 catcaatgac gtcattaatg cttttactgc tattcgcttt tgtacagccg tgtgcctcaa 540
19 tagtcgaaaa acgatgcggc ccaatcgata ttcgaaatag gccgtgggat attaagccgc 600
20 aatggtcgaa acttggtgat ccgaacgaaa aagatttggc tggtcagaga atggtcaact 660
21 gcacagtggg ggaagggttcg ctgacaatct catttgtact gaaacacaag acaaaagcac 720
22 aagaagaagt gcatcgaagt ctacagccaa gatattocca agacgaattt atcacttttc 780
23 cgcatctacg tgaaattact ggaactctgc tcgtttttga gactgaagga ttagtggatt 840
24 tgcgtaaaat tttcccaaat cttcgtgtaa ttggaggccg ttcgctgatt caacactatg 900
25 cgctgataat ttatcgaaat ccggatttgg agatcggctt tgacaagctt tccgtaattc 960
26 gaaatggtgg tgtacggata atcgataatc gaaaactgtg ctacacgaaa acgattgatt 1020
27 ggaaacattt gatcacttct tccatcaacg atgttgctctg tgataatgct gccgagtacg 1080
28 ctgtcactga gactggattg atgtgcccac gtggagcttg cgaagaggat aaaggcgaat 1140
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31 aaatcggacc gggatgtgat gcgaacggcg atcgatgtca cgatcaatgc gtgggcggtt 1320
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45 actcggctctt ctttagttgg ccttcattca acattaccga tatagatcag cgaaagtttc 2160
46 tcggctacga gctcttcttc aaagaagtcc cacgaatcga tgagaacatg acgatcgaag 2220
47 aggatcgaag tgcgtgtgtc gattcgtggc agagtgtctt caaacagtac tacgagacgt 2280

```

|    |            |            |            |            |            |            |      |
|----|------------|------------|------------|------------|------------|------------|------|
| 48 | cgaacggtga | acaccccg   | gacattttta | tggatattgg | acgcgag    | cgaattcggc | 2340 |
| 49 | cgaatacgct | ctacgcgtac | tatgtggcga | cgcagatggt | gttgcacgcc | ggtgcgaaga | 2400 |
| 50 | acggtgtatc | gaagattggt | tttgtgagga | cgagctacta | tacgcctgat | cctccgacgt | 2460 |

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Input Set: I205658.RAW

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| 52  | cgaacggaga | cctcacgcat  | tacacaatta  | tgtggcgtga  | gaatgaagt   | agcccgtag   | 2580 |
| 53  | aggaagccga | aaagttttgt  | acagatgcaa  | gcacccccgc  | aaatcgacaa  | cgcacgaaag  | 2640 |
| 54  | atccgaaaga | gacgattgta  | gccgataagc  | cagtcgatat  | tccgtcatca  | cgtaccgtag  | 2700 |
| 55  | ctccgacact | tttgactatg  | atgggtcacg  | aagatcagca  | gaaaacgtgc  | gctgcaacgc  | 2760 |
| 56  | ccggttggtg | ttcgtgttcg  | gctatcgaag  | aatcatcgga  | acagaacaag  | aagaagcgac  | 2820 |
| 57  | cggatccgat | gtcggcgatc  | gaatcatctg  | catttgagaa  | taagctgttg  | gatgaggttt  | 2880 |
| 58  | taatgccgag | agacacgatg  | cgagtggagac | gatcaattga  | agacgcgaat  | cgagtcagtg  | 2940 |
| 59  | aagagttgga | aaaagctgaa  | aatttgggaa  | aagctccaaa  | aactctcggt  | ggaaagaagc  | 3000 |
| 60  | cgctgatcca | tatttcgaag  | aagaagccgt  | cgagcagcag  | caccacatcc  | acaccggctc  | 3060 |
| 61  | caacgatcgc | atcaatgtat  | gccttaacaa  | ggaaaccgac  | tacggtgccg  | ggaacaagga  | 3120 |
| 62  | ttcggctcta | cgagatctac  | gaacctttac  | ccggaagctg  | ggcgattaat  | gtatcagctc  | 3180 |
| 63  | tggcattgga | taatagttat  | gtgatacgaa  | atttgaagca  | ttacacactt  | tatgcgattt  | 3240 |
| 64  | ctctatccgc | gtgccaaaac  | atgacagtac  | ccggagcatc  | ttgtctcaata | tcccatcggtg | 3300 |
| 65  | cgggagcatt | gaaacgaaca  | aaacacatca  | cagacattga  | taaagtgttg  | aatgaaacaa  | 3360 |
| 66  | ttgaatggag | atattatgaat | aatagtcaac  | aagtcaacgt  | gacgtgggat  | ccaccgactg  | 3420 |
| 67  | aagtgaatgg | tggaaatattc | ggttatgttg  | taaagcttaa  | gtcaaaagtc  | gatggatcaa  | 3480 |
| 68  | ttgttatgac | gagatgtgtc  | ggtgcgaaga  | gaggatattc  | aacacggaat  | caggggtgtcc | 3540 |
| 69  | tattccagaa | tttgccgat   | ggacgttatt  | ttgtctcagt  | aacggcgacc  | tctgtacacg  | 3600 |
| 70  | gcgctggacc | ggaagccgaa  | tcctccgacc  | caatcgctgt  | catgacgcca  | ggcttcttca  | 3660 |
| 71  | ctgtggaaat | cattctcggt  | atgcttctcg  | tctttttgat  | tttaatgtca  | attgccgggt  | 3720 |
| 72  | gtataatcta | ctactacatt  | caagtacgct  | acggcaaaaa  | agtgaagct   | ctatctgact  | 3780 |
| 73  | ttatgcaatt | gaatcccga   | tattgtgttg  | acaataagta  | caatgcagac  | gattggggagc | 3840 |
| 74  | tacggcagga | tgatgttgtg  | ctcggacaac  | agtgtggaga  | gggatcattc  | ggaaaagtgt  | 3900 |
| 75  | acctaggaac | tggaaataat  | gttgtttctc  | tgatgggtga  | tcgtttcgga  | ccgtgtgcta  | 3960 |
| 76  | ttaagattaa | tgtagatgat  | ccagcgtcga  | ctgagaatct  | caactatctc  | atggaagcta  | 4020 |
| 77  | atattatgaa | gaactttaag  | actaacttta  | tcgtccaact  | gtacggaggt  | atctctactg  | 4080 |
| 78  | tacaaccagc | gatggttgtg  | atggaaatga  | tggatcttgg  | aaatctccgt  | gactatctcc  | 4140 |
| 79  | gatcgaaacg | cgaagacgaa  | gtgttcaatg  | agacggactg  | caacttttcc  | gacataatcc  | 4200 |
| 80  | cgagggataa | attccatgag  | tgggcccgcac | agattttgtg  | tggatggcg   | tacctggagt  | 4260 |
| 81  | cgctcaagtt | ttgccatcga  | gatctcgccg  | cacgtaattg  | catgataaat  | cgggatgaga  | 4320 |
| 82  | ctgtcaagat | tggagatttc  | ggaatggctc  | gtgatctatt  | ctatcatgac  | tattataagc  | 4380 |
| 83  | catcgggcaa | gcgtatgatg  | cctgttcgat  | ggatgtcacc  | cgagtcggtg  | aaagacggaa  | 4440 |
| 84  | agtttgactc | gaaatctgat  | gtttggagct  | tcggagttgt  | tctctatgaa  | atggttacac  | 4500 |
| 85  | tcggtgctca | gccatatatt  | ggtttgagta  | atgatgaggt  | gttgaaattat | attggaatgg  | 4560 |
| 86  | cccggaaggt | tatcaagaag  | ccggaatgtt  | gtgaaaacta  | ttggtataag  | gtgatgaaaa  | 4620 |
| 87  | tgtgctggag | atactcacct  | cgggatcgtc  | cgacgttccct | ccagctcggt  | catcttctag  | 4680 |
| 88  | cagctgaagc | ttcaccagaa  | ttccgagatt  | tatcatttgt  | cctaaccgat  | aatcaaatga  | 4740 |
| 89  | tccttgacga | ttcagaagca  | ctggatcttg  | atgatattga  | tgatactgat  | atgaatgatc  | 4800 |
| 90  | aggttgctga | ggtggcaccg  | gatgttgaga  | acgtcgaggt  | tcagagtgat  | tcggaacgtc  | 4860 |
| 91  | ggaatacggg | ttcaataaccg | ttgaaacagt  | ttaagacgat  | ccctccgatc  | aatgacgacg  | 4920 |
| 92  | cgagtcattc | gacaatatcg  | attgatgaga  | caccgatgaa  | agcgaagcag  | cgagaaggat  | 4980 |
| 93  | cgctggatga | ggagtacgca  | ttgatgaatc  | atagtggagg  | tccgagtgat  | gcggaagtcc  | 5040 |
| 94  | ggacgtatgc | tgggtgatgga | gattatgtgg  | agagagatgt  | tcgagagaat  | gatgtgccaa  | 5100 |
| 95  | cgcgacgaaa | tactggtgca  | tcaacatcaa  | gttacacagg  | tgggtggcca  | tattgcctaa  | 5160 |
| 96  | caaactcgtg | tggttcaaat  | gaacgaggag  | ccggtttcgg  | tgaagcagta  | cgattaactg  | 5220 |
| 97  | atgggtgttg | aagtggacat  | ttaaatgatg  | atgattatgt  | tgaataagag  | atatcatcca  | 5280 |
| 98  | tggatacgcg | ccggagcagc  | ggcgccctcg  | gtcttcccta  | cgggtgtcca  | cagacgaatt  | 5340 |
| 99  | ggagtggaaa | tcgtggtgcc  | acgtattata  | cgagtaaagc  | tcaacaggca  | gcaactgcag  | 5400 |
| 100 | cagcagcagc | agcagcagct  | ctccaacagc  | aacaaaatgg  | tggctcaggcc | gatcgattaa  | 5460 |

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**RAW SEQUENCE LISTING**  
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Input Set: I205658.RAW

|     |            |            |            |            |             |            |      |
|-----|------------|------------|------------|------------|-------------|------------|------|
| 101 | ctcaactacc | cggaactgga | catttacaat | cgacacgtgg | tggaacaagat | ggagattata | 5520 |
| 102 | ttgaaactga | accgaaaaat | tatagaaata | atggatctcc | atcgcgaaac  | ggcaacagcc | 5580 |
| 103 | gtgacatttt | caacggacgt | tcggctttcg | gtgaaaatga | gcataataatc | gaggataatg | 5640 |
| 104 | agcatcatcc | acttgtctga | aacccccaaa | aaatcccgcc | tcttaaatta  | taaattatct | 5700 |
| 105 | cccacattat | catatctcta | cacgaatata | ggattttttt | tcagattttt  | tctgaaaaat | 5760 |
| 106 | tctgaataat | tttaccat   | ttttcaaata | tctgtatttt | tttttggtat  | tacccc     | 5816 |